

Application No.: 10/008235

Case No.: 55393US011

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

1-7 (Canceled)

8. (Currently Amended) A radiation curable, ink jettable fluid composition, comprising:

- (a) an oligo/resin component; and
- (b) a radiation curable reactive diluent, wherein the reactive diluent comprises a high Tg component, 0.1 to 50 weight percent of an adhesion promoting component, and at least one multifunctional monomer having a plurality of radiation curable moieties, wherein the adhesion promoting component comprises at least one of a heterocyclic radiation curable monomer, and/or a monomer comprising a pendant alkoxyated moiety; ~~wherein the reactive diluent comprises no more than about 10 weight percent of an alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality; and~~

wherein the fluid composition is ink jettable and comprises less than 10 weight percent of an alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality.

9. (Original) The radiation curable, ink jettable composition of claim 8, wherein the adhesion promoting component comprises a heterocyclic radiation curable monomer.

10. (Original) The radiation curable, ink jettable composition of claim 8, wherein the adhesion promoting component comprises a radiation curable monomer comprising a pendant alkoxyated moiety.

11. (Original) The ink composition of claim 8, wherein the oligo/resin component is aliphatic.

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12. (Original) The ink composition of claim 8, wherein the oligo/resin component comprises an oligo/resin selected from the group consisting of an aliphatic polyester oligo/resin, an aliphatic polyurethane oligo/resin, and an aliphatic acrylic oligo/resin.

13. (Original) The ink jettable fluid composition of claim 8, wherein the composition is substantially free of solvent.

14. (Original) The ink jettable fluid composition of claim 8, wherein the reactive diluent comprises 0.5 to 50 weight percent of the high Tg component, 0.5 to 70 weight percent of the adhesion promoting component, and 0.5 to 50 weight percent of the one multifunctional monomer having a plurality of radiation curable moieties.

15. (Original) The ink jettable fluid composition of claim 14, wherein the high Tg component comprises a monomer, said monomer comprising at least one radiation curable moiety and at least one nonaromatic, cyclic moiety.

16. (Original) The ink jettable composition of claim 14, wherein the high Tg component comprises isobornyl (meth)acrylate.

17. (Original) The ink jettable composition of claim 8, wherein the multifunctional monomer comprises hexanediol di(meth)acrylate.

18. (Original) The ink jettable composition of claim 14, wherein the adhesion promoting component comprises a monomer having an adhesion score after curing of at least 50 according to ASTM D 3359-95A, Method B on at least one substrate chosen from the group consisting of polymethyl methacrylate, polyvinyl chloride, and polyethylene terephthalate.

19. (Original) The ink jettable composition of claim 14, wherein the adhesion promoting component comprises a monomer, said monomer comprising at least one radiation curable moiety and pendant alkoxyated functionality.

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20. (Original) The ink jettable composition of claim 14 wherein the adhesion promoting component comprises 2-(2-ethoxyethoxy)ethyl (meth)acrylate.

21. (Original) The ink jettable composition of claim 14, wherein the adhesion promoting component comprises a monomer, said monomer comprising at least one radiation curable moiety and at least one heterocyclic moiety.

22. (Original) The ink jettable composition of claim 21, wherein said monomer is tetrahydrofurfuryl (meth)acrylate.

23. (Original) The composition of claim 14, wherein the adhesion promoting component comprises N-vinylcaprolactam.

24. (Original) The composition of claim 14, wherein the adhesion promoting component comprises propoxyethyl (meth)acrylate.

25. (Original) The composition of claim 14, wherein the adhesion promoting component comprises propoxylated neopentyl glycol di(meth)acrylate.

26. (Previously amended) The ink jettable composition of claim 8, wherein the adhesion promoting component comprises 1 to 10 parts by weight of a first monomer comprising at least one radiation curable moiety and pendant alkoxyated functionality per 5 to 15 parts by weight of a second monomer comprising at least one radiation curable moiety and at least one heterocyclic moiety.

27. (Previously amended) The ink jettable composition of claim 26, wherein the first monomer is 2-(2-ethoxyethoxy)ethyl (meth)acrylate and the second monomer is tetrahydrofurfuryl (meth)acrylate.

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28-63 (Canceled)

64. (Currently Amended) A radiation curable, ink jettable fluid composition, comprising:

- (a) an oligo/resin component; and
- (b) a radiation curable reactive diluent, wherein the reactive diluent comprises

a high Tg component, an adhesion promoting component, and at least one multifunctional monomer having a plurality of radiation curable moieties, wherein the adhesion promoting component comprises at least one of a heterocyclic radiation curable monomer, and/or a monomer comprising a pendant alkoxyated moiety, ~~wherein the reactive diluent comprises no more than about 10 weight percent of an alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality;~~ and wherein the fluid composition has a viscosity of up to about 50 centipoise at 25 °C and comprises less than 10 weight percent of an alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality.

65. (New) The ink jettable fluid composition of claim 8, wherein the reactive diluent is substantially free of the alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality.

66. (New) The ink jettable fluid composition of claim 8, wherein the ink jettable fluid composition has an elongation of at least 50% in a cured state.

67. (New) The ink jettable fluid composition of claim 8, wherein the reactive diluent is substantially free of trifunctional monomer having a plurality of radiation curable moieties.

68. (New) The ink jettable fluid composition of claim 8, wherein the reactive diluent comprises isobornyl (meth)acrylate, tetrahydrofurfuryl (meth)acrylate, and hexanediol di(meth)acrylate.

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69. (New) The ink jettable fluid composition of claim 8, wherein the reactive diluent comprises 30-50 wt% isobornyl (meth)acrylate, 30-50 wt% tetrahydrofurfuryl (meth)acrylate, and 5-15 wt% hexanediol di(meth)acrylate.

70. (New) A radiation curable, ink jettable fluid composition, comprising:

- (a) an oligo/resin component; and
- (b) a radiation curable reactive diluent, wherein the reactive diluent comprises:

isobornyl (meth)acrylate;
tetrahydrofurfuryl (meth)acrylate, and
hexanediol di(meth)acrylate;

wherein the fluid composition comprises less than 10 weight percent of an alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality and the fluid composition is ink jettable; and the fluid composition has an elongation of at least 50% in a cured state.

71. (New) The ink jettable fluid composition of claim 70, wherein the reactive diluent comprises 30-50 wt% isobornyl (meth)acrylate, 30-50 wt% tetrahydrofurfuryl (meth)acrylate, and 5-15 wt% hexanediol di(meth)acrylate.

72. (New) The ink jettable fluid composition of claim 70, wherein the reactive diluent is substantially free of trifunctional monomer having a plurality of radiation curable moieties.

73. (New) The ink jettable fluid composition of claim 70, wherein the reactive diluent is substantially free of the alkoxyated, radiation curable monomer comprising main-chain alkoxyated functionality.

74. (New) The ink jettable fluid composition of claim 8, wherein the oligo/resin component is a di-functional moiety.

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75. (New) The ink jettable fluid composition of claim 70, wherein the oligo/resin component is a di-functional moiety.

76. (New) The ink jettable fluid composition of claim 8, wherein the oligo/resin component is an aliphatic urethane diacrylate.

77. (New) The ink jettable fluid composition of claim 70, wherein the oligo/resin component is an aliphatic urethane diacrylate.